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The report, "Microhardness Testing in the Region of Indentations With a Diagonal Shorter Than a Micron," delivered by Professor M. M. Khrushchev and Ye. S. Berkovich, dealt with a new method for measuring small indentations with an electron microscope.

B. D. Gogoberidze and N. A. Kopatskiy, LITMO, (Leningrad Institute of Precision Mechanics and Optics), in their report, "Concerning the Nature of the Polished Surface of Monocrystals," discussed the investigation of the polished surface of rock salt. Results showed that the "hardness-load" curve for the case of the polished surface is being plotted higher than for the surface of natural cleavage.

Academician N. T. Gudtsov and M. G. Lozinskiy (Institute of Metallurgy, Academy of Sciences) delivered a report entitled "Vacuum Instruments for Measuring Hardness and Microhardness at High Temperatures."

The second part of the session comprised 15 reports on the application of the microhardness method.

Special theoretical and practical significance was attributed to the reports "The Microhardness of Double High-Melting Carbides," by A. Ye. Koval'skiy and L. A. Petrova, and "Measuring the Microhardness of Zirconium Carbide in Relation to the Carbon Content," by A. Ye. Koval'skiy and P. G. Makarenko. Both reports presented numerous data on studying the systems of complex carbides and demonstrated the practical significance of the microhardness testing method for the solution of essential industrial problems.

The problems of metal structure were the subject of several reports: "On Investigation of Intradendritic Liquation by the Method of Microhardness," by D. A. Petrov and L. A. Raykovskaya (Institute of General and Inorganic Chemistry, Academy of Sciences), "Application of the Microhardness Method for Studying the Structure Constituents of Cast Alloys," by A. M. Korol'kov and E. S. Kadaner (Institute of Metallurgy, Academy of Sciences), and others.

Interesting information was given by N. Yu. Ikornikova (Institute of Crystallography, Academy of Sciences) on the method for measuring the microhardness of synthetic corundum, on the determination of its brittleness by this method, and on establishing the relationship between optical anomalies and microbrittleness of corundum.

Developing this information, V. I. Yegorov, NIIChesprok (Scientific Research Institute of the Clock and Watch Industry), made a report, "Application of the Microhardness Method in the Fabrication of Precise Technical Stones and in the Watchmaking Industry," which highly evaluated the role of the microhardness method in quality control of industrial production.

The paper entitled "Measuring the Microhardness of Coals and Coke," by Ye. M. Tayts and Z. S. Tyabina (Institute of Minerals Fuels, Academy of Sciences), illustrated the introduction of the microhardness method into another field of science.

The conference adopted a resolution noting the wide application of the microhardness testing method in research work and industry, and suggesting continuation of work on improving the method and equipment.

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